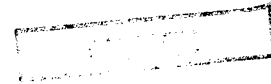


LOG NO: 0614	RD.
SECTION:	
FILE NO:	

ASSESSMENT REPORT
GEOCHEMICAL SURVEY
GEOCHEMICAL SAMPLING
PHOTOGRAMMETRY
SAM 1 CLAIM

ATLIN MINING DIVISION
NTS 104K
58° 17' N
132° 20' W



OWNER: CHEVRON MINERALS LTD.

OPERATORS: NORTH AMERICAN METALS B.C. INC.
GOLDEN BEAR OPERATING COMPANY LIMITED

AUTHORS: E.D. TITLEY
CONSULTING GEOLOGIST

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,487

Date Filed: June 2, 1988

SAM 1
ASSESSMENT REPORT

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1. INTRODUCTION

1.1 In the spring of 1987, North American Metals B.C. Inc. contracted Eagle Mapping Services Ltd. to do photogrammetric work. The 1:12,000 scale aerial photographs produced by McElhenney Associates in 1983 for Chevron Minerals Ltd. were used in this project. On August 8, 1987 this work was completed. It resulted in 1:5000 scale orthophotos and 1:5000 topographic base maps of a portion of the Golden Bear Property including the SAM 1 mineral claim.

1.2 Geological mapping was carried out by G.W. Lowey, Ph.D. Consulting Geologist in the month of August 1987. Geochemical sampling in August and early September of that year was conducted by North American Metals B.C. Inc. geologists and consulting geologists. All work was completed under the direction of the author.

1. INTRODUCTION

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2. LOCATION AND ACCESS

The SAM 1 claim is in northwestern British Columbia at latitude 58° 17' N and longitude 132° 20' W. (Figure 1). The nearest towns are Telegraph Creek (80 km east); Atlin, B.C. (160 km northwest); and Juneau Alaska (140 km west). The closest all-weather road access is at Telegraph Creek. The camp is serviced by fixed wing aircraft on wheels or floats from Dease Lake (140 km) or Whitehorse (340 km). Due to the rugged terrain conditions, a Bell 206 and a Hughes 500 helicopter were used to conduct the field work.

Relief on the claim varies from 1400 m (asl) to 2100 m (asl). All of the claim is above treeline. Climatic conditions are highly variable with sudden snow and rain showers common year-round.

LOCATION MAP

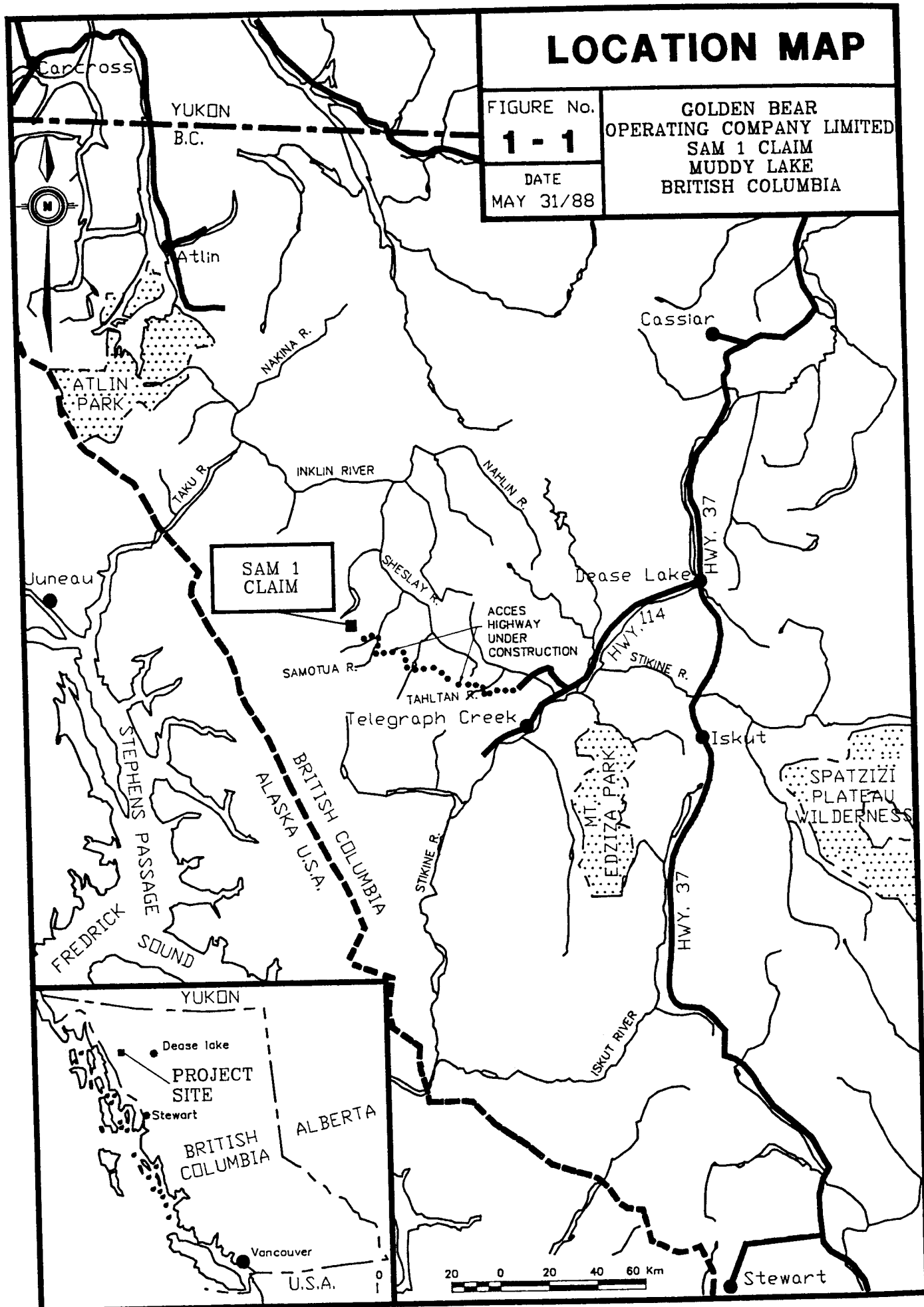
FIGURE No.

1 - 1

DATE

MAY 31/88

**GOLDEN BEAR
OPERATING COMPANY LIMITED
SAM 1 CLAIM
MUDDY LAKE
BRITISH COLUMBIA**



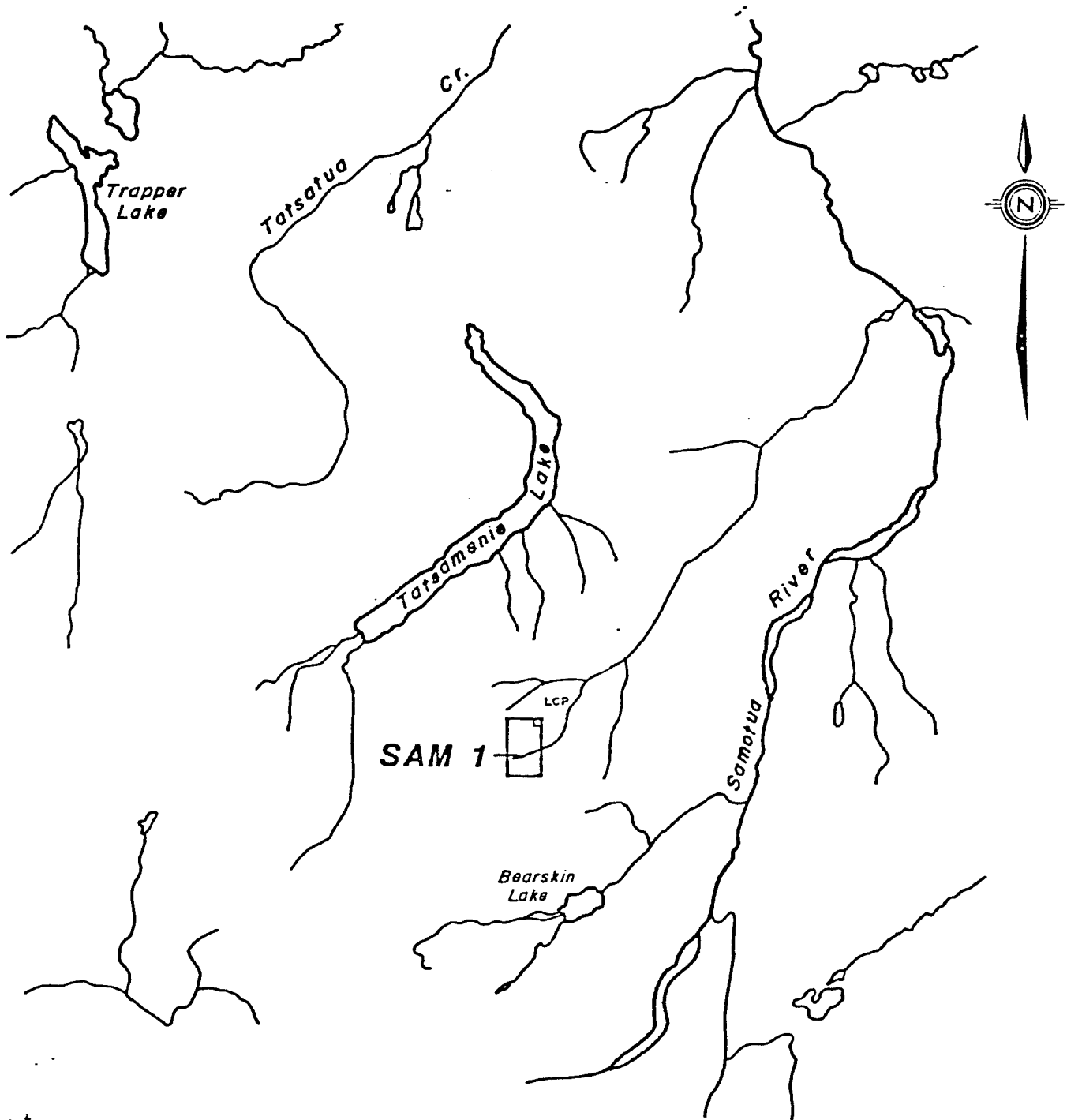
3. CLAIM DESCRIPTION AND STATUS

The SAM 1 claim consists of 15 units, which were staked on February 24, 1981. (Table 1, Figure 2). Chevron Minerals Ltd. (CML) is the registered owner of the claims. North American Metals Corp. B.C. Inc. (NAMBC) entered into an option agreement and has acquired a 50% participating interest in the SAM 1 claim. North American Metals B.C. Inc., was the operator of the project in 1987. Presently, the claim is operated by Golden Bear Operating Company Ltd. which is owned by CML and NAMBC. The work conducted during 1987 will keep the claims in good standing until March 5, 1990.

Previous work on the claims by Chevron Resources involved geochemical sampling and geological mapping (Walton, G., 1985). Work by North American Metals included further geochemical sampling (Wasylyshyn & Titley, 1987).

Table 1

<u>Claim</u>	<u>Record Number</u>	<u>Record Date</u>	<u>Number of Units</u>
SAM 1	1290	March 5, 1981	15



SAM 1
LOCATION MAP

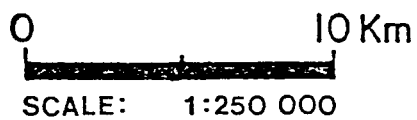


FIG. 2

4. PROPERTY GEOLOGY

The rocks found on the SAM 1 claim are predominantly from the Stikine Assemblage (Souther, 1971). Previous, mapping by Chevron (Walton, G., 1985) and Souther (1971) defined the lithologies present on the property.

The area is underlain by Permian carbonates and Pre-Upper Triassic mafic volcanics. A mudstone unit is often found in gradational contact between the carbonates and the volcanics. Cretaceous-Tertiary felsite dykes cut the Permian and Triassic units.

A major north-south trending fault structure cuts across the area. Significant gold occurrences have been found along this structure to the south. Folding related to late Jurassic deformation has been identified on the property. Alteration zones are often associated with faulting in the vicinity of the claims. Silicification and dolomitization of the carbonates; and quartz iron carbonate alteration of the volcanics; with local sulphide and gold mineralization, are the common alteration features of the area.

5. GEOLOGICAL SURVEY

5.1 Introduction

A geological survey of the SAM 1 was conducted by G.W. Lowey, PH.D in August 1987. Geologic information was plotted in the field on orthophoto base maps and transferred to topographic originals. These originals were then digitized and the results plotted on film.

5.2 Lithologies

Three main lithologic groups were identified on the SAM 1 claim. These groups are described in Table 2. The claim is underlain by limestones that are Permian in age (Monger, 1977). The transition from Permian Limestones to Permo-Triassic volcanic rocks occurs on the claim north of Sam Creek. This transition is gradual, and appears to represent a facies change. Limestones are interbedded with fine, clastic sedimentary rocks and fine tuff in this area. Exposure within the overlying Permo-Triassic fine tuff unit is generally poor. The rock tends to mechanically weather rapidly and original textures are generally not seen.

Narrow Tertiary felsite dykes cross-cut the Permian and Permo-Triassic units locally. These dykes are usually less than 0.1 m wide, occur in small swarms trending north-south and dip steeply.

Table 2

Lithologies

Tertiary:	Felsic dykes: light buff, mostly fine grained, with some disseminated pyrite.
Permo-Triassic:	Fine tuff: dark green, mafic, fine grained often chloritized.
	Phyllite: brown to green, very fine grained, well foliated, often sericitized.
	Argillite: black, very fine grained, sometimes foliated, sometimes siliceous.
	Limestone: grey, (sometimes pink), fine grained, sometimes iron carbonate altered.
	Shale: Grey, very fine grained, well foliated.
Permian:	Limestone: light to dark grey, fine to medium grained, often recrystallized, rarely fossiliferous (crinoid stems).

5.3 Structure

The Permian and Permo-Triassic units trend 290-310 degrees and dip from 45-70 degrees to the east. Folding is seen in the Permian limestone looking west on the south ridge of Sam Creek. These are large scale s-shaped folds with vergence to the north and amplitudes of 100's of metres. They were formed during late Jurassic tectonism, possibly due to terrane amalgamation in the region. Brecciation in the Permian Limestones is common. Intraformational, sedimentary and karst-type breccias as well as possible tectonic breccias, are seen. The Permo-Triassic volcanics tended to deform by shearing and faulting. A large fault, possibly related to the Bear Fault System cuts the northeast corner of the claim block. It trends north-northwest and dips steeply to the east.

5.4 Mineralization

No significant mineralization was found on the SAM 1 claim during this study, other than sub-angular mineralized boulders up to 5m in size. These boulders include quartz breccia containing abundant arsenopyrite, stibnite and magnetite, and locally pyritic tuff. None of this float carries any appreciable quantities of gold. However, the potential for gold mineralization at depth on north-trending fault structures is worth investigating with diamond drilling.

6. GEOCHEMICAL SURVEY

The SAM 1 mineral claim is situated on a possible extension of, or parallel structure within the Bear Fault Zone, which is associated with the major gold deposits of Bear and Fleece to the south. A large, multi-element geochemical anomaly and mineralized float were identified during the 1986 work by NAMC. The 1987 work consisted of selective rock and soil sampling. A total of 12 rock chip/float grab samples and 4 silt/talus fines samples were taken. Approximately 3 kg of material was taken for each rock chip/float sample. Samples were crushed and pulverized at the Golden Bear mine site at Muddy Lake. The silt/talus fines samples were placed in kraft sample bags, and air dried on site. All samples were analyzed by Chemex Labs in North Vancouver using the analytical procedure outlined in Appendix 1.

7. RESULTS

All samples were analyzed for gold, silver, arsenic, antimony, copper, and mercury, bismuth, cadmium, lead, molybdenum, selenium, and zinc. Results are tabulated in Appendix 2 and shown on Maps 1 to 5.

No bedrock source was identified for the large multi-element anomaly found on the south side of SAM 1 claim. However, the paucity of outcrop in this area does not preclude the possibility of such a source.

Two mildly anomalous talus fine samples (B7H-001 and B7H-002) suggest that there may be some gold associated with the carbonate volcanic contact north of Sam Creek. Grab samples taken of mineralized float confirmed the presence of arsenic and antimony in these rocks, but returned low gold values. None of the results point to more detailed exploration targets.

8. CONCLUSIONS AND RECOMMENDATIONS

Geological mapping and geochemical sampling have not successfully defined the source of the geochemical anomaly on the south slope of Sam Creek. No significant new mineralization or anomalous areas were discovered. However, because of the paucity of outcrop, the structural and lithologic relationships are not well known. It is possible that buried mineralization similar to that which occurs on the Golden Bear property to the south exists on the claim. A geophysical survey to define fault structures followed up by diamond drilling of the targets would be the best way to evaluate this possibility.

9. REFERENCES

- Monger, J.W. H. (1977). Upper Paleozoic rocks of the Western Canadian Cordillera and their bearing on Cordilleran evolution. Canadian Journal of Earth Sciences. v.14,p. 1832-1859.
- Shaw, D. (1984). Assessment Report; Geological, Geochemical and Geophysical Survey, MISTY Group. Atlin Mining Division (104k).
- Souther, J.G. (1971). Geology and Mineral Deposits of Tulsequah map-area, British Columbia, Geological Survey of Canada, Memoir 362, 84p.
- Walton, G. (1985). Assessment Report, Geological and Geochemical Survey, MISTY 1, 2, SAM 1. Atlin Mining Division (104k).
- Wasylyshyn, R.S. & Titley, E.D. (1987). Assessment Report, Geochemical Survey Sam 1. Atlin Mining Division (104KI).

10. STATEMENT OF EXPENDITURES - SAM 1

Labour

	<u>Field Days</u>	<u>Office Days</u>	<u>Rate per Day</u>	<u>Total</u>
G.W. Lowey, Geologist	3	3	\$150.00	\$900.00
P.T. Baxter, Geologist	1	-	\$130.00	\$130.00
E.D. Titley, Geologist	0.5	1	\$200.00	\$300.00
R. Hulstein, Geologist	1	-	\$200.00	\$200.00
G.E. Nicholson, Geologist	0.25	-	\$160.00	\$ 40.00

Camp Costs

	<u>Man Days</u>	<u>Rate/Day</u>	<u>Total</u>
Geologists (Mapping)	3.0	\$60.00	\$180.00
Geologists (Sampling)	2.75	\$60.00	\$165.00
Plot	0.25	\$60.00	\$ 15.00

Helicopter

	<u>Hours</u>	<u>Total</u>
Bell 206 Trans North	1.0	\$ 628.00
Hughes 500 Yukon Airways Ltd.	1.7	\$1,153.88

Analytical Costs

	<u>Samples</u>	<u>Rate</u>	<u>Total</u>
Rock Chip/Float Grab	12	\$22.25	\$267.00
Silt/Talus Fines	4	\$23.00	\$ 92.00

Drafting

	<u>Hours</u>	<u>Rate/Day</u>	<u>Total</u>
Geochemistry	5	\$22.00	\$ 110.00

Photogrammetry

\$1,175.00

Consumables

Pickets, Flagging, Sample Bags \$ 30.00

\$5,385.88

STATEMENT OF QUALIFICATION

I, Eric D. Titley, graduated from the University of Waterloo, Ontario with a Bachelor of Science (Honours Earth Sciences) degree in 1980.

Since graduation I have been employed as a geologist. I have worked in the Muddy Lake area since April 1984. I am presently working as a Consulting Geologist for the Golden Bear Operating Company Limited. I am a Fellow of the Geological Association of Canada.

Work on the SAM 1 claim was completed under my supervision.

E.D. Titley, B.Sc., F.G.A.C

June 1988

APPENDIX 1

Standard two page report on
Analytical Procedures
(Au, Ag, As, Sb, Bi, Cd, Cu, Pb, Hg, Mo, Se, Zn)

APPENDIX A

GEOCHEMICAL PREPARATION AND ANALYTICAL PROCEDURES

1. Geochemical samples (soils, silts) are dried at 50°C for a period of 12 to 24 hours. The dried sample is sieved to -80 mesh fraction through a nylon and stainless steel sieve. Rock geochemical materials are crushed, dried and pulverized to -100 mesh.
2. A 1.00 gram portion of the sample is weighted into a calibrated test tube. The sample is digested using hot 70% HClO₄ and concentrated HNO₃. Digestion time = 2 hours.
3. Sample volume is adjusted to 25 mls. using demineralized water. Sample solutions are homogenized and allowed to settle before being analyzed by atomic absorption procedures.
4. Detection limits using Techtron A.A.5 atomic absorption unit.

Copper	- 1 ppm
Molybdenum	- 1 ppm
Zinc	- 1 ppm
*Silver	- 0.2 ppm
*Lead	- 1 ppm
*Nickel	- 1 ppm
Chromium	- 5 ppm

*Ag, Pb & Ni are corrected for background absorption.

5. Elements present in concentrations below the detection limits are reported as one half the detection limit, i.e. Ag - 0.1 ppm.

Silver by AAS

A 1.0 gram portion of samples is digested in concentrated nitric acid followed by aqua regia (approximately 2 hours). The digest is cooled and made up to 25ml with distilled water. The digest is mixed and solids are allowed to settle. Silver is determined by atomic absorption technique using background corrected. Detection limit for silver is 0.2 ppm.

Arsenic

A 1.0 gram sample is digested with acids for approximately 2 hours. The digested solution is diluted to volume and mixed. After the digest is acidified, reduced with KI and mixed. After the reduced solution is converted to arsine with NaBH₄ and the content determined using flameless atomic absorption. Detection limit for arsenic is 1 ppm.

Mercury

A 1.0 gram sample is digested with nitric acid plus a small amount of hydrochloric acid. Following digestion the resulting solution is transferred to a reaction flask connected to a mercury absorption cell. Stannous sulfate is rapidly added to reduce mercury to its elemental state. The mercury is then flushed from the reaction vessel into the absorption cell where it is measured by vapour atomic absorption methods with a Varian Spectrophotometer. Absorbance of samples is compared with the absorbance of prepared mercury standard solutions carried through the procedure. Detection limit for mercury is 10 ppb.

Bismuth, Selenium, Antimony

A 2.0 gram sample is digested with concentrated HCl and potassium dichromate. The solution is then cooled. After the addition of the reduction of iron, the solution is extracted with diethyl ether and analyzed via standard AA procedure, correcting for iron absorption. Detection limit for bismuth is 0.1 ppm, selenium is 0.1 ppm and antimony is 0.2 ppm.

Cadmium, Copper, Lead, Molybdenum, Zinc

A 1.0 gram sample is digested in concentrated nitric acid and aqua regia for approximately 2 hours. The digested solution is cooled and made up to 25 ml with distilled water. The solution is mixed and solids are allowed to settle. The elements are determined by atomic absorption techniques. Lead is corrected for background. Detection limit for cadmium is 0.1 ppm, copper is 0.1 ppm, molybdenum is 1 ppm and zinc is 1 ppm.

F.A. - A.A. GOLD COMBO METHOD

For low grade samples and geochemical materials 10 gram samples are fused with the addition of 10 mg of Au-free Ag metal and cupelled. The silver bead is parted with dilute HNO_3 and then treated with aqua regia. The salts are dissolved in dilute HCl and analyzed for Au on an atomic absorption spectrophotometer to a detection of 5 ppb.

APPENDIX 2
ANALYTICAL RESULTS



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 BROOKSBANK AVE., NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-1C1
 PHONE (604) 984-0221

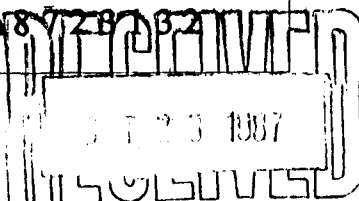
T. NORTH AMERICAN METALS CORP.

1020 - 800 W. PENDER ST.
 VANCOUVER, BC
 V6C 2H6

A8723132

Comments: CC: MUDDY LAKE

CERTIFICATE A8723132



NORTH AMERICAN METALS CORP.
 PROJECT : GOLDEN BEAR
 P.O.# : 34783

Samples submitted to our lab in Vancouver, BC
 This report was printed on 22-OCT-87.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
201	4	Dry, sieve -80 mesh; soil, sed.

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
101	4	Au ppb: Fuse 10 g sample	FA-NAA	1	10000
961	4	Sb ppm: Gold-related package	AAS-BKGD CORR	0.2	1000
962	4	As ppm: Gold-related package	AAS-HYDRIDE/EDL	1	10000
963	4	Bi ppm: Gold-related package	AAS-BKGD CORR	0.1	1000
964	4	Cd ppm: Gold-related package	AAS-BKGD CORR	0.1	1000
965	4	Cu ppm: Gold-related package	AAS	1	10000
967	4	Pb ppm: Gold-related package	AAS-BKGD CORR	1	10000
20	4	Hg ppb: HNO ₃ -HCl digestion	AAS-FLAMELESS	5	100
968	4	Mo ppm: Gold-related package	AAS	1	10000
16	4	Se ppm: HCl-KClO ₃ digest, ext	AAS-BKGD CORR	0.2	1000
969	4	Ag ppm: Gold-related package	AAS-BKGD CORR	0.1	200
972	4	Zn ppm: Gold-related package	AAS	1	10000



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1
PHONE (604) 984-0221

To ORTH AMERICAN METALS CORP.

1020 - 800 W. PENDER ST.
VANCOUVER, BC
V6C 2H6

A8723131

Comments: CC: MUDDY LAKE

CERTIFICATE A8723131

NORTH AMERICAN METALS CORP.

PROJECT : GOLDEN BEAR

P.O.# : 34783

Samples submitted to our lab in Vancouver, BC.
This report was printed on 22-OCT-87.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
214	11	Received sample as pulp

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
101	11	Au ppb: Fuse 10 g sample	FA-NAA	1	10000
961	11	Sb ppm: Gold-related package	AAS-BKGD CORR	0.2	1000
962	11	As ppm: Gold-related package	AAS-HYDRIDE/EDL	1	10000
963	11	Bi ppm: Gold-related package	AAS-BKGD CORR	0.1	1000
964	11	Cd ppm: Gold-related package	AAS-BKGD CORR	0.1	1000
965	11	Cu ppm: Gold-related package	AAS	1	10000
967	11	Pb ppm: Gold-related package	AAS-BKGD CORR	1	10000
20	11	Hg ppb: HNO ₃ -HCl digestion	AAS-FLAMELESS	5	100
968	11	Mo ppm: Gold-related package	AAS	1	10000
16	11	Se ppm: HCl-KClO ₃ digest, ext	AAS-BKGD CORR	0.2	1000
969	11	Ag ppm: Gold-related package	AAS-BKGD CORR	0.1	200
972	11	Zn ppm: Gold-related package	AAS	1	10000



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

112 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To: THE AMERICAN METALS CORP.

1020 - 800 W. PENDER ST.
VANCOUVER, BC
V6C 2H6

Project: GOLDEN BEAR

Comments: CC: MUDDY LAKE

Page No.

Tot. Page.

Date: 22-OCT-87

Invoice #: I-8723131

P.O. #: 34783

CERTIFICATE OF ANALYSIS A8723131

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	Sb ppm	As ppm	Bi ppm	Cd ppm	Cu ppm	Pb ppm	Hg ppb	Mb ppm	Se ppm	Ag ppm	Zn ppm		
22518 G	214	5	20.0	12	0.1	0.1	57	2	200	1	0.2	0.1	21		
22519 G	214	79	60.0	1900	0.1	0.1	62	3	520	1	0.2	0.2	34		
22520 G	214	47	0.8	70	0.1	0.1	6	1	50	1	0.2	0.1	33		
22521 G	214	22	4.2	60	0.1	0.1	15	1	30	1	0.2	0.2	25		
22522 G	214	7	0.6	15	0.1	0.1	29	1	20	1	0.2	0.2	75		
22523 G	214	< 1	1.2	33	0.1	0.5	39	1	10	1	0.2	0.1	112		
22524 G	214	6	0.7	9	0.1	0.1	19	1	10	1	0.2	0.1	12		
22525 G	214	< 1	1.2	7	0.1	0.1	22	1	10	1	0.2	0.1	39		
22526 G	214	1	0.3	4	0.1	0.1	8	1	50	1	0.2	0.1	48		
22527 G	214	< 1	0.4	3	0.1	0.1	62	1	20	1	0.2	0.1	21		
22528 G	214	235	0.4	9	0.1	0.1	11	1	40	1	0.2	0.2	23		

CERTIFICATION :

Hart Buchler



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-2C1

PHONE (604) 984-0221

To: NORTH AMERICAN METALS CORP.

1020 - 800 W. PENDER ST.
VANCOUVER, BC
V6C 2H6

A8721872

Comments: CC: MUDDY LAKE

CERTIFICATE A8721872

ANALYTICAL PROCEDURES

NORTH AMERICAN METALS CORP.

PROJECT : GOLDEN BEAR

P.O.# : 34754

Samples submitted to our lab in Vancouver, BC.

This report was printed on 25-SEP-87.

RECEIVED
SEP 28 1987

SAMPLE PREPARATION		
CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
214	35	Received sample as pulp

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
101	35	Au ppb: Fuse 10 g sample	FA-NAA	1	10000
961	35	Sb ppm: Gold-related package	AAS-BKGD CORR	0.2	1000
962	35	As ppm: Gold-related package	AAS-HYDRIDE/EDL	1	10000
963	35	Bi ppm: Gold-related package	AAS-BKGD CORR	0.1	1000
964	35	Cd ppm: Gold-related package	AAS-BKGD CORR	0.1	1000
965	35	Cu ppm: Gold-related package	AAS	1	10000
967	35	Pb ppm: Gold-related package	AAS-BKGD CORR	1	10000
20	35	Hg ppb: HNO ₃ -HCl digestion	AAS-FLAMELESS	5	100
968	35	Mo ppm: Gold-related package	AAS	1	10000
16	35	Se ppm: HCl-KClO ₃ digest, ext	AAS-BKGD CORR	0.2	1000
969	35	Ag ppm: Gold-related package	AAS-BKGD CORR	0.1	200
972	35	Zn ppm: Gold-related package	AAS	1	10000



Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers
112 BROOKSBANK AVE., NORTH VANCOUVER,
BRITISH COLUMBIA, CANADA V7J-1C1
PHONE (604) 984-0211

To KTH AMERICAN METALS CORP.

1020 - 800 W. PENDER ST.
VANCOUVER, BC
V6C 2H6

Project : GOLDEN BEAR
Comments: CC: MUDDY LAKE

Page No. _____
Tot. Pag _____
Date : 25-SEP-87
Invoice #: I-8721872
P.O. #: 34754

CERTIFICATE OF ANALYSIS A8721872

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	Sb ppm	As ppm	Bi ppm	Cd ppm	Cu ppm	Pb ppm	Hg ppb	Mb ppm	Se ppm	Ag ppm	Zn ppm		
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G 6043	214	—	< 1	1.4	3	0.1	0.1	19	1	70	1	0.2	0.1	56	
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G 6193	214	—	10	>1000	29	0.1	0.1	56	5	350	2	0.2	0.1	27	
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CERTIFICATION : Hunter/Becker

APPENDIX 3

GEOCHEMICAL SAMPLES DESCRIPTION

Sample Number	Type	Sampler Date	Description
B7B-006	Silt	Baxter Sept 7/87	Glacial meltwater stream near toe.
B7B-007	Silt	Baxter Sept 7/87	Glacial meltwater stream near toe.
B7H-001	Talus Fines	Hulstein Sept 7/87	Talus fines on steep side hill.
B7H-002	Talus Fines	Hulstein Sept 7/87	Talus Fines on steep side hill.
G6043	Chip	Nicholson Aug 26/87	Sugar quartz, pink dolomite, ankerite, alteration, C.G.R. skarn, trace hematite, disseminated pyrite.
G6193	Float	Titley Aug 26/87	Angular boulder, quartz breccia with pyritic matrix, & and acicular radiating arsenopyrite
G22519	Float	Baxter Sept 7/87	Moraine, bleached pyritic tuff.
G22520	Chip	Baxter Sept 7/87	Rubbly outcrop of felsic dyke.
G22521	Chip	Baxter Sept 7/87	Rubbly outcrop of limestone (cut by felsic dyke above).
G22522	Scree	Baxter Sept 7/87	Scree of Felsic to Intermediate Dyke (outcrop is on north side of creek).
G22523	Chip	Hulstein Sept 7/87	Foliated black graphitic, partially siliceous mudstone, trace f.g.r pyrite.
G22524	Chip	Hulstein Sept 7/87	White bull quartz sweat, limonitic fractures, hosted by fine ash tuff/mudstone.
G22525	Chip	Hulstein Sept 7/87	White bull quartz sweat in light green phyllite <2.0 m wide 085/30N.
G22526	Chip	Hulstein Sept 7/87	Tan limestone with quartz blebs (20% quartz).
G22527	Chip	Hulstein Sept 7/87	White bull quartz (20%) included in green phyllite and minor carbonate.

..../cont.



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 BROOKSBANK AVE., NORTH VANCOUVER,
 BRITISH COLUMBIA, CANADA V7J-2C1
 PHONE (604) 984-0221

To NORTH AMERICAN METALS CORP.

1020 - 800 W. PENDER ST.
 VANCOUVER, BC
 V6C 2H6

Project : GOLDEN BEAR
 Comments: CC: MUDDY LAKE

Page No. 1
 Tot. Page 1
 Date 2-OCT-87
 Invoice #: I-8723132
 P.O. #: 34783

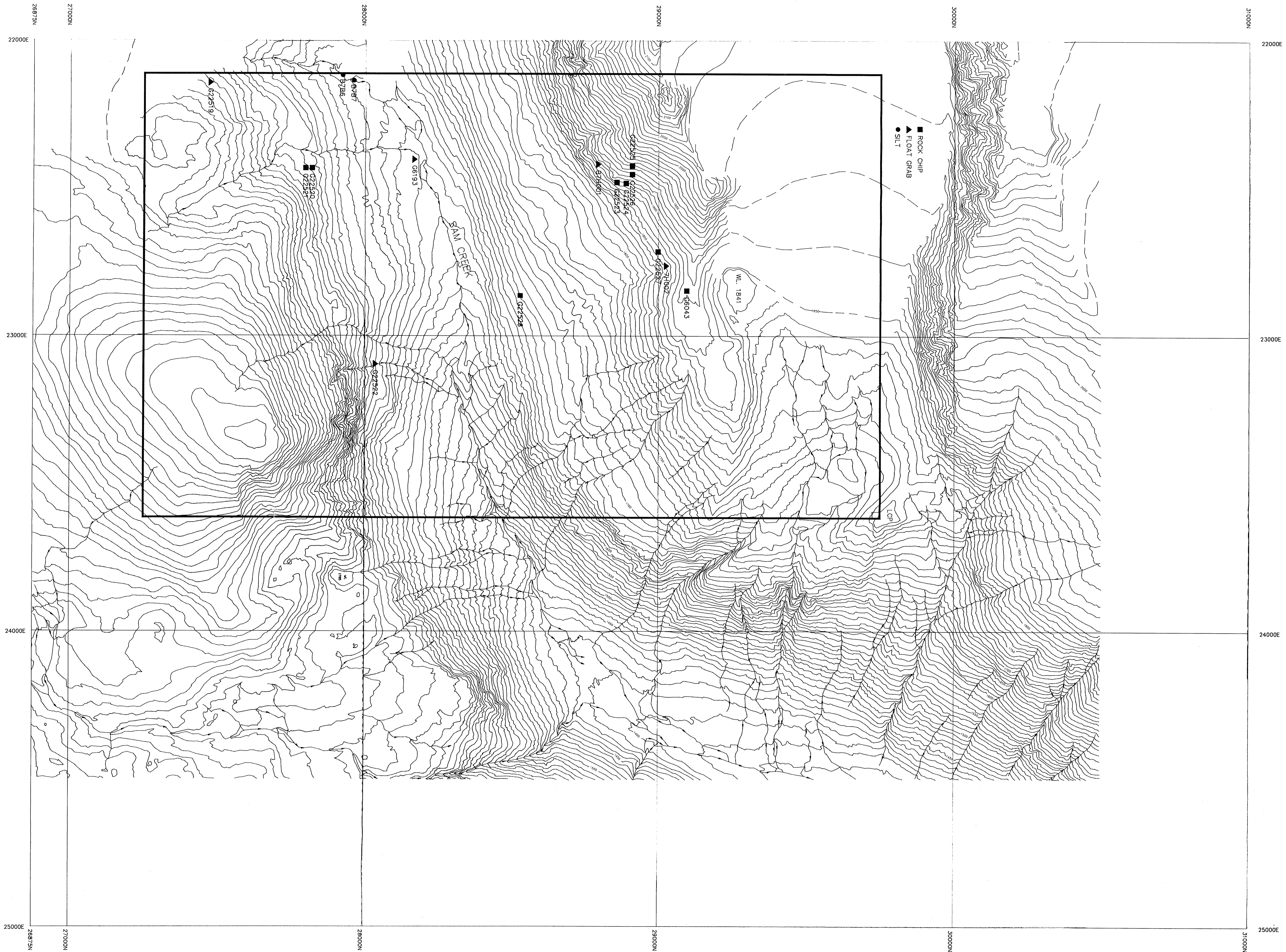
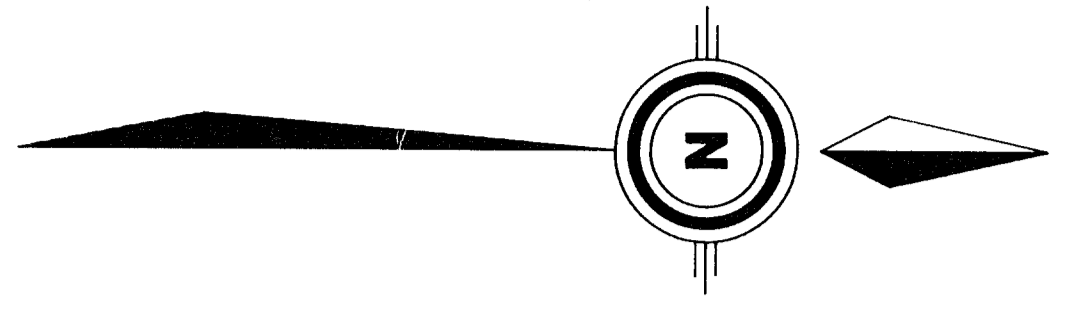
CERTIFICATE OF ANALYSIS A8723132

SAMPLE DESCRIPTION	PREP CODE	Au NAA ppb	Sb ppm	As ppm	Bi ppm	Cd ppm	Cu ppm	Pb ppm	Hg ppb	Mb ppm	Se ppm	Ag ppm	Zn ppm		
B7H - 001	201 ---	222	2.8	200	0.1	0.1	24	3	70	1	0.2	0.1	162		
B7H - 002	201 ---	269	3.8	38	0.1	0.1	45	4	60	1	0.2	0.1	130		
B7B - 006	201 ---	4	15.4	90	0.1	0.1	18	3	130	1	0.2	0.1	65		
B7B - 007	201 ---	14	22.0	90	0.1	0.1	19	4	170	1	0.2	0.1	58		

CERTIFICATION :

Hart Bickler

Sample Number	Type	Sampler Date	Description
G22528	Chip	Hulstein Sept 7/87	Light green foliated phyllite, cross-cut by 1-2 cm quartz stringers (5% quartz).



GEOLOGICAL BRANCH
ASSESSMENT REPORT

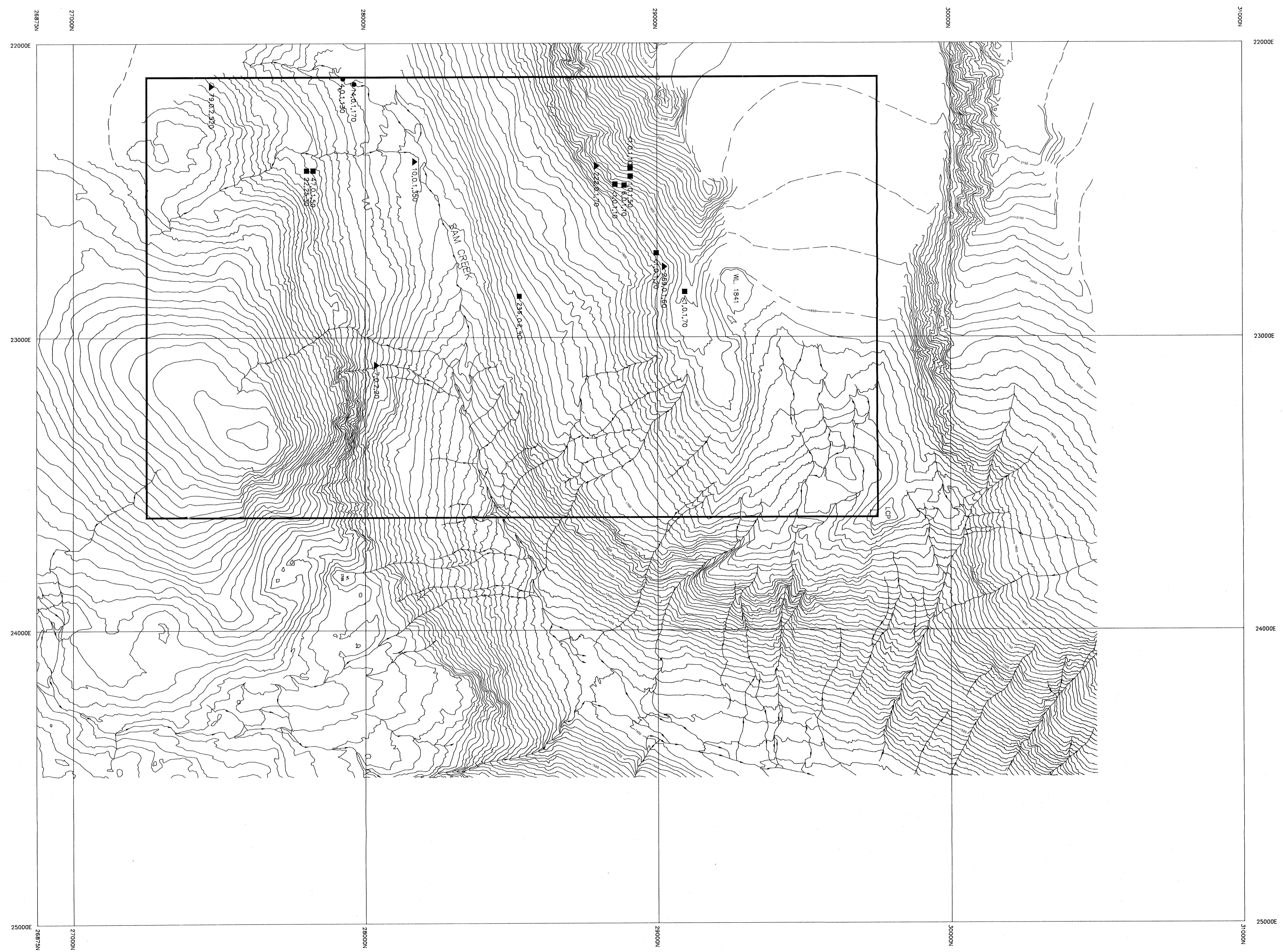
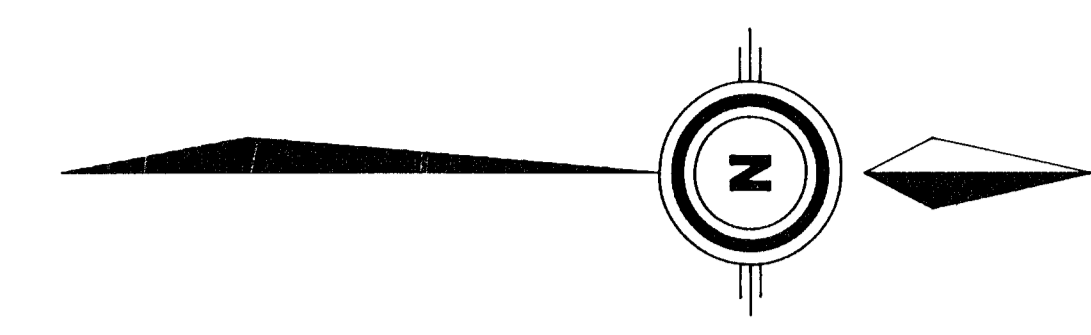
17,487

REV	DATE	BY	ISSUES	REFERENCE DWGS

GOLDEN BEAR OPERATING COMPANY LIMITED
 SUITE 1030 - 800 WEST PENDER ST.
 VANCOUVER, B.C.
 V6C 2V8

**SAM 1 CLAIM
 SAMPLE LOCATIONS**

DWG G.S./J.E.	DWG NO.	REV
CHK. E.T.	MAP 1	0
ENGR	SCALE 1:5000	DATE JUNE 1/88
APPD. E.T.		



LEGEND:
 ■ Au ppb, Ag ppm, Hg ppb.

0 50 100 150 200 250 350 450 550
 METERS

GEOLOGICAL BRANCH
 ASSESSMENT REPORT

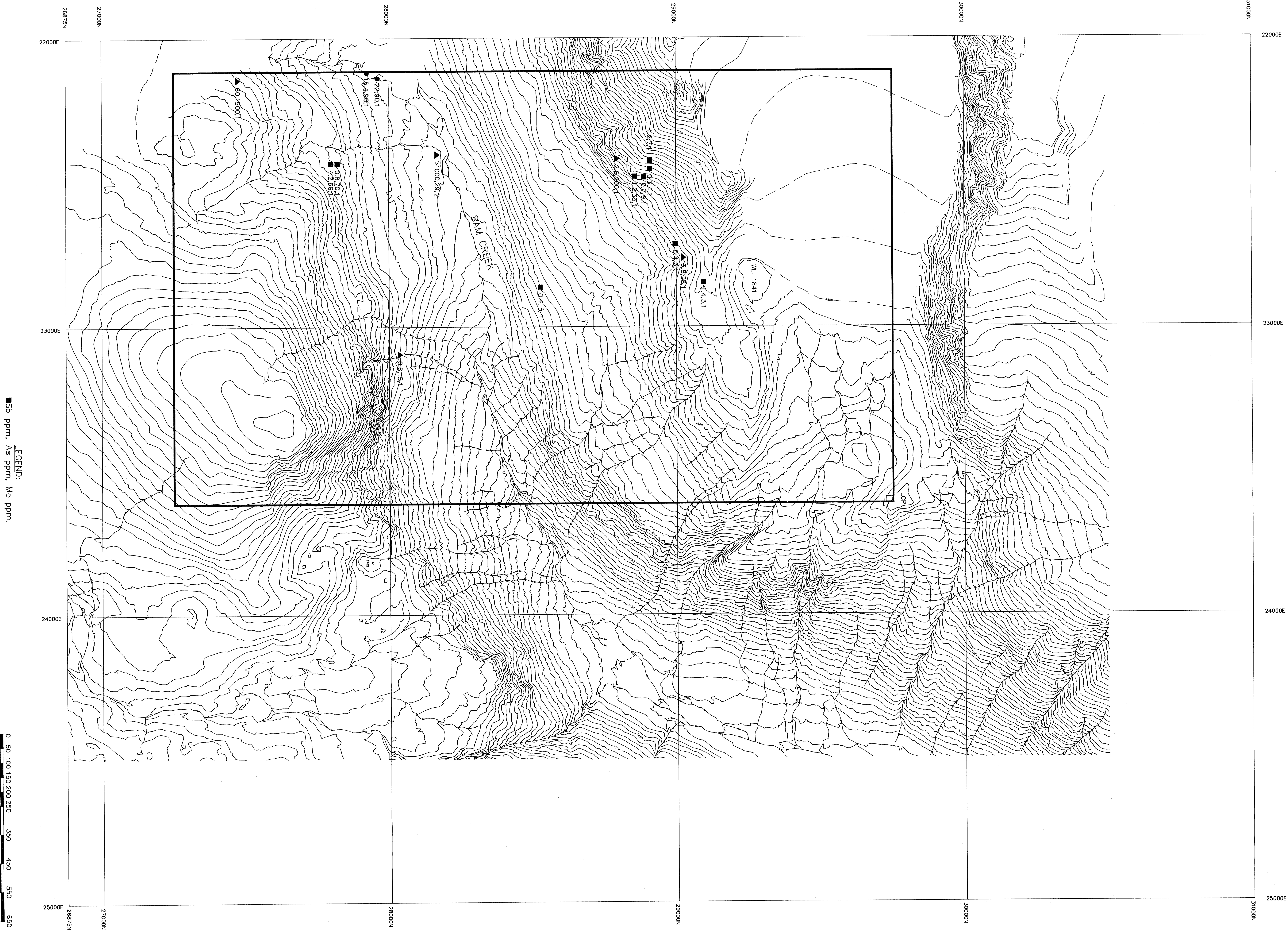
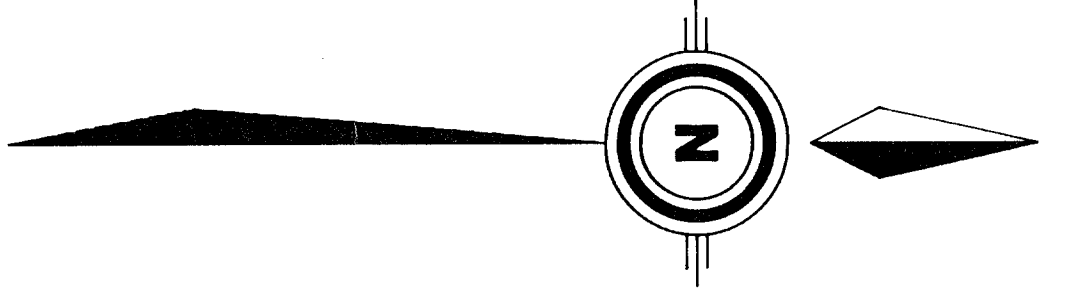
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REVISIONS	MADE BY	DATE	LETTER	ISSUES	REFERENCE DWGS

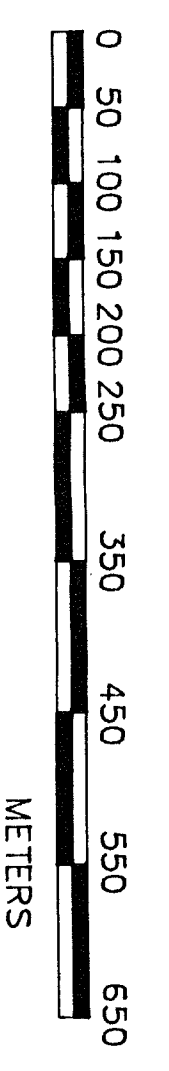
GOLDEN BEAR OPERATING COMPANY LIMITED
 SUITE 1030 - 800 WEST PENDER ST.
 VANCOUVER, B.C.
 V6C 2W6

SAM 1 CLAIM
GOLD, SILVER, MERCURY RESULTS

DWG G.S./J.E	DWG NO.	REV
CHK E.T.	MAP2	0
ENGR	SCALE 1:5000	DATE JUNE 1/88
APP E.T.		



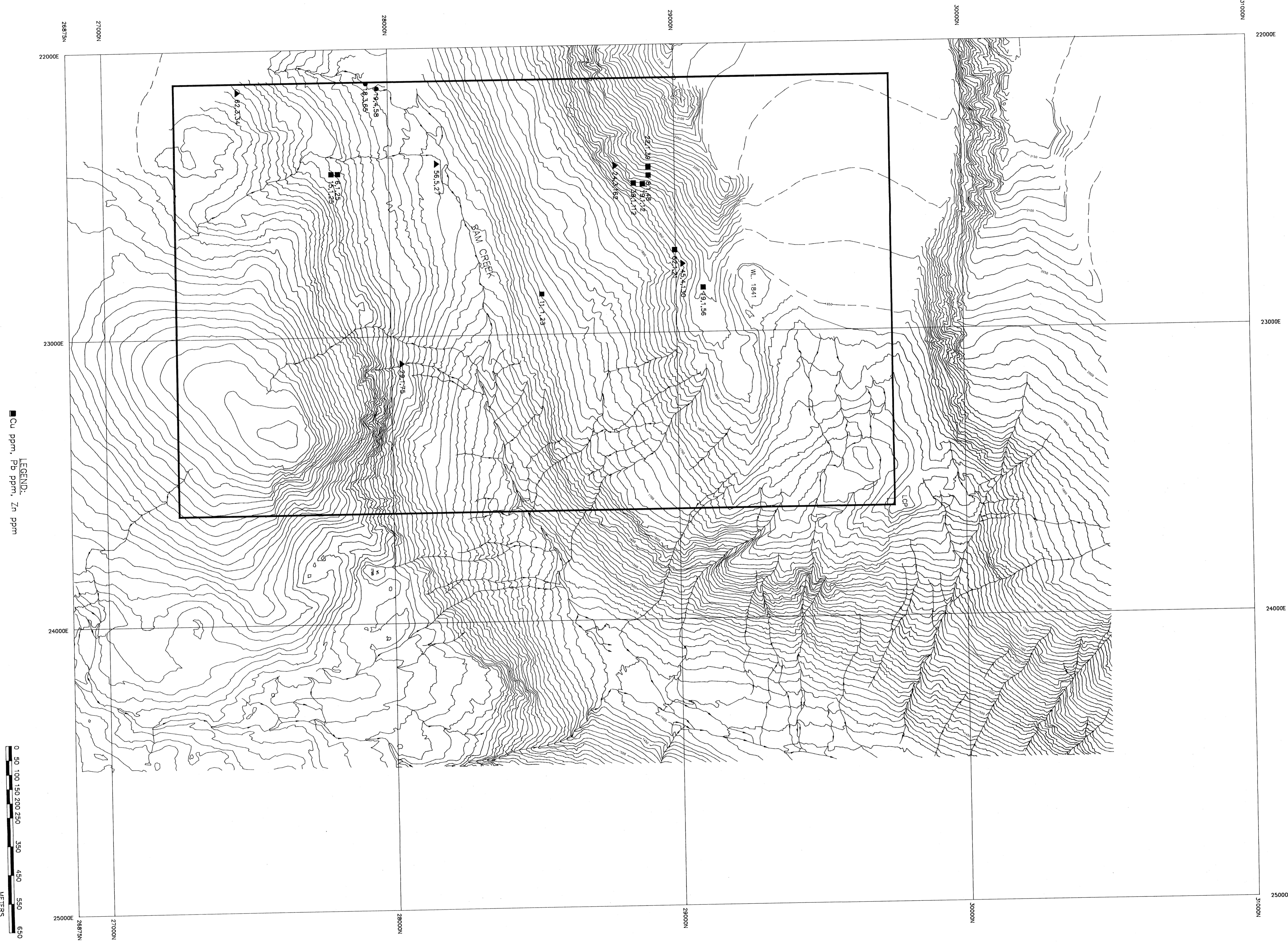
LEGEND:
■ Sb ppm, As ppm, Mo ppm.



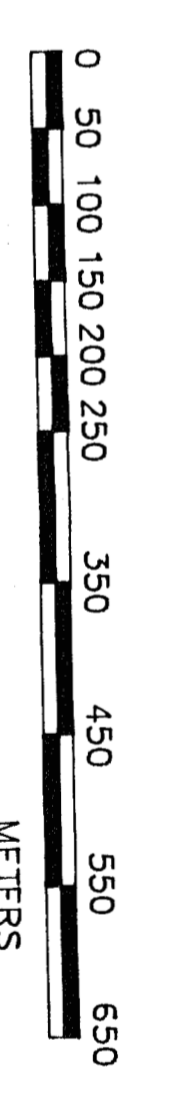
GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,487

				GOLDEN BEAR OPERATING COMPANY LIMITED <small>SUITE 1030 - 800 WEST PENDER ST. VANCOUVER, B.C. V5C 2V8</small>		SAM 1 CLAIM ARSENIC,ANTIMONY,MOLYBDENUM RESULTS		DWG NO. G.S./J.E. CHK E.T. ENGR APPD E.T.	DWG NO. MAP3	REV 0
REVISIONS	MADE BY.	DATE	LETTER	ISSUES	REFERENCE DWGS	SCALE 1:5000	DATE JUNE 1/88			



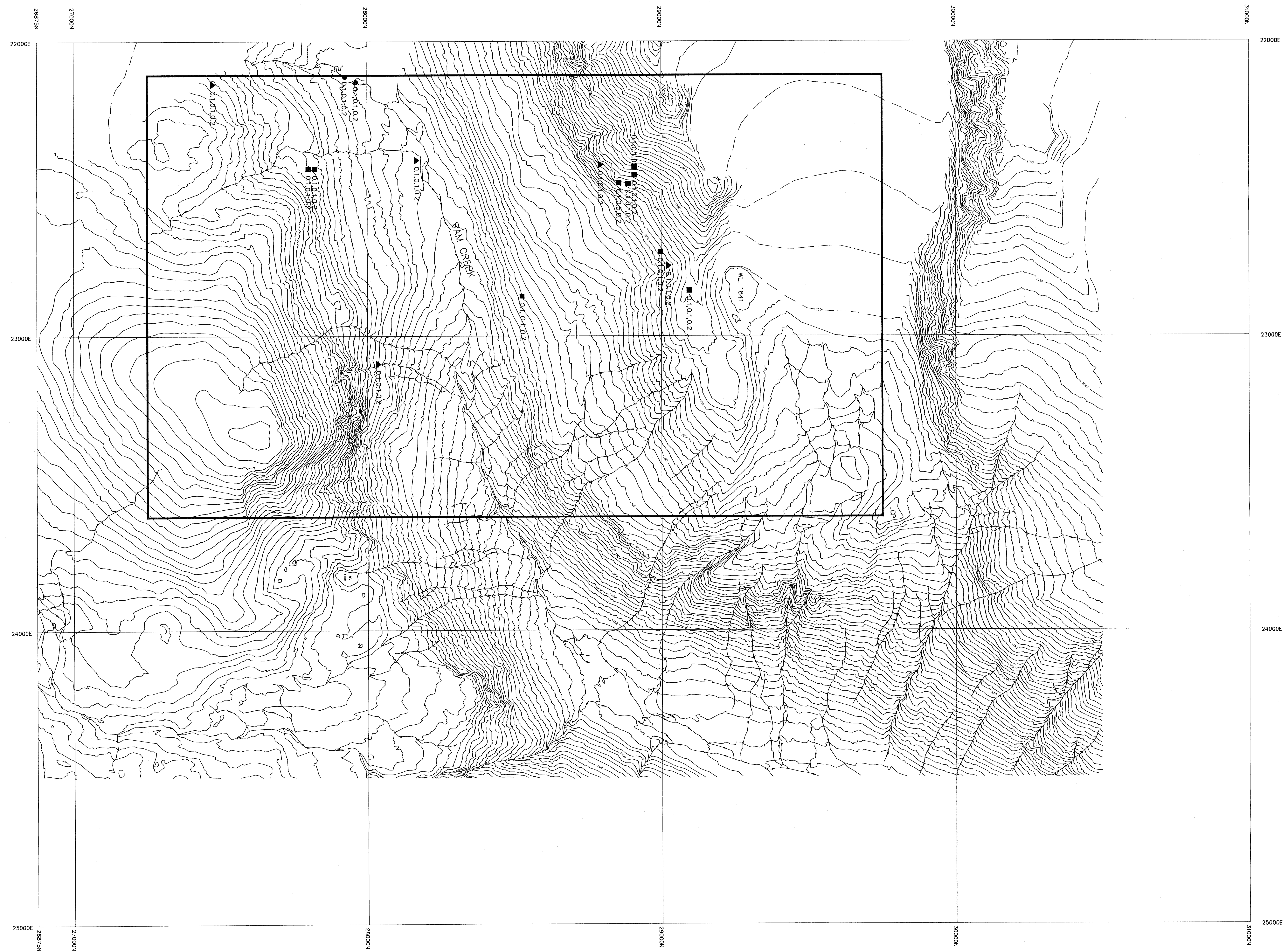
■ Cu ppm, Pb ppm, Zn ppm



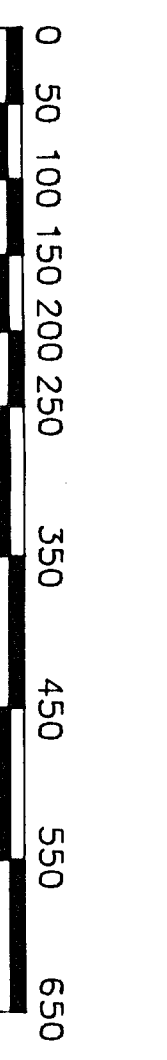
GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,487

<p>GOLDEN BEAR OPERATING COMPANY LIMITED SUITE 1030 - 800 WEST PENDER ST. VANCOUVER, B.C. VEC 2V8</p>				<p>SAM 1 CLAIM COPPER, LEAD, ZINC RESULTS</p>		<p>DWG G.S./J.B. CHK E.T. ENGR APPD E.T.</p>	<p>DWG NO. MAP4</p>	<p>SCALE 1:5000 DATE JUNE 1/88</p>	<p>REV 0</p>
REVISIONS	MADE BY	DATE	LETTER	ISSUES	REFERENCE DWGS				



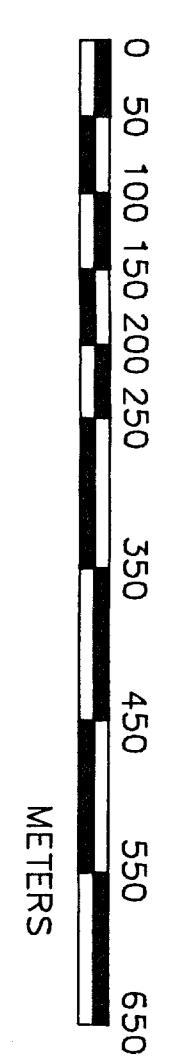
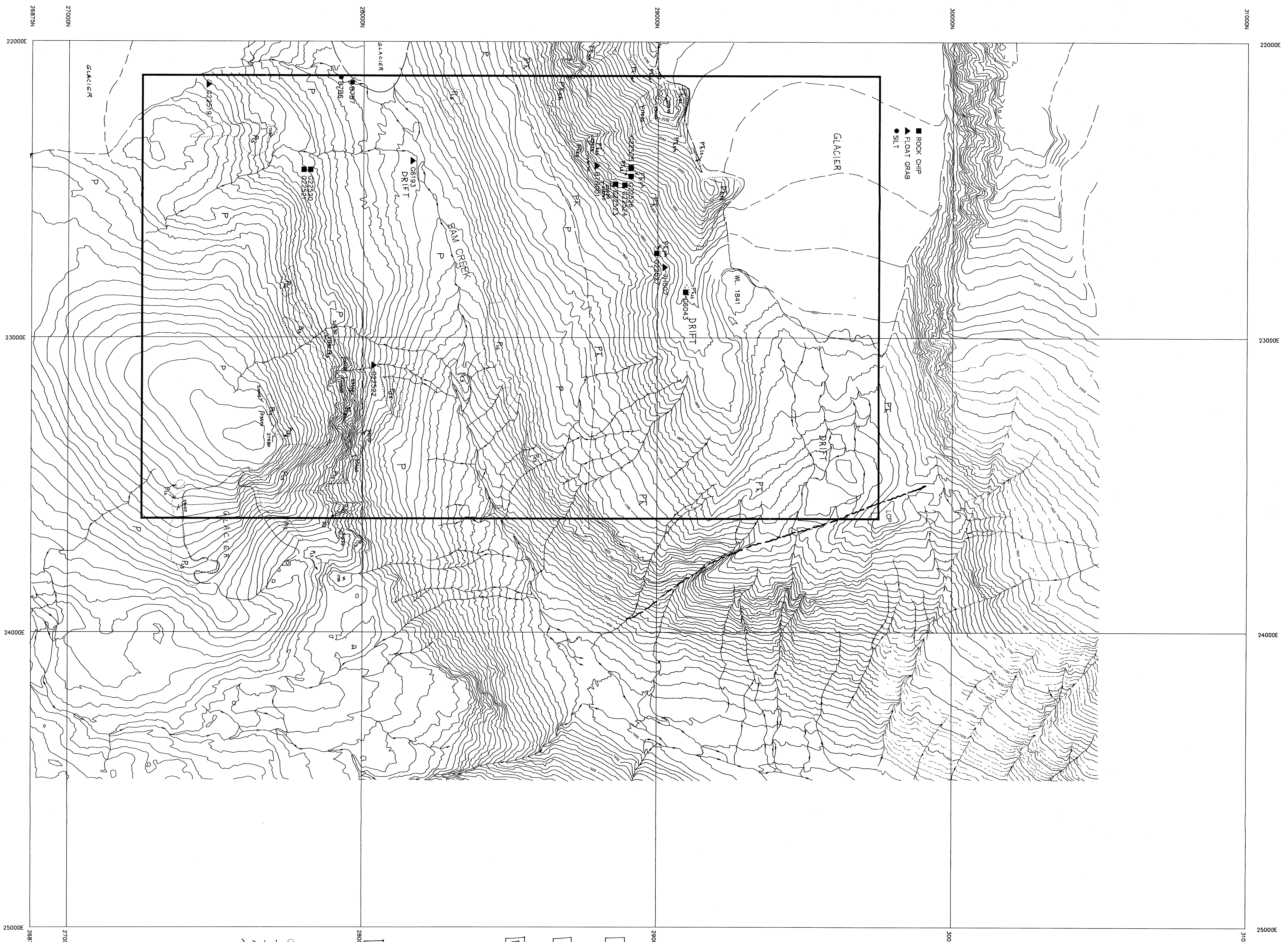
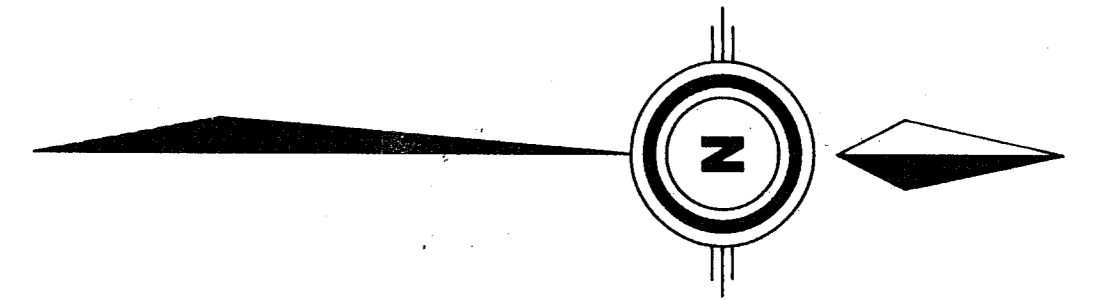
■ Bi ppm, Cd ppm, Se ppm.



GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,487

				GOLDEN BEAR OPERATING COMPANY LIMITED SUITE 1030 - 800 WEST PENDER ST. VANCOUVER, B.C. V6C 2V6		SAM 1 CLAIM BISMUTH, CADMIUM, SELENIUM RESULTS		DWG. G.S./J.E. CHK. E.T. ENGR. APPD. E.T.	DWG. NO. MAP5	REV 0
REVISIONS	MADE BY	DATE	LETTER	ISSUES	REFERENCE DWGS	SCALE 1:5000		DATE JUNE 1/88		



- LEGEND**
- * QUATERNARY AND RECENT
Unconsolidated drift, tillstones, alluvium and landslide debris
 - T TERTIARY
Unsubdivided dikes and veins
Tdi felsic dikes
 - PK PENNO-TRIASSIC
Unsubdivided volcanics, tuffs and secondary veins
PKvt fine tuff
PKbt banded tuff
PKct crystal tuff
PKtl Lapilli tuff
PKat altered tuff
PKsh shale
PKar argillite
PKph phyllite
PKls limestone
 - P PERMIAN
Unsubdivided carbonate rocks
Ps Limestone
Pds dolostone
 - area of talusk outcrop
 - geologic boundary, observed
 - geologic boundary, assumed
 - fault, observed
 - fault, assumed
 - bedding
 - foliation
 - joint

GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,487

GOLDEN BEAR OPERATING COMPANY LIMITED <small>SUITE 1030 - 800 WEST PENDER ST. VANCOUVER, B.C. V6C 2V6</small>				SAM 1 CLAIM GEOLOGY		<small>DWG G.S./J.E. DWG NO.</small> MAP 6	<small>REV</small> 0
<small>REVISIONS</small>	<small>MADE BY</small>	<small>DATE</small>	<small>LETTER</small>	<small>ISSUES</small>	<small>REFERENCE DWGS</small>	<small>SCALE 1:5000</small>	<small>DATE JUNE 1/88</small>